

Please use a plus sign (+) inside this box → +

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

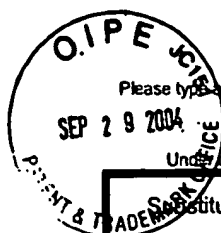
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete if Known		
			Application Number	09/905,718	
			Filing Date	05/16/2001	
			First Named Inventor	Willson et al.	
			Group Art Unit	1762	
			Examiner Name	Pianalto, Bernard D.	
Sheet	1	of	7	Attorney Docket Number	PA27-02Q12

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	B1	4,070,116		Frosch et al.	01-24-1978	
	B2	4,600,309		Fay	07-15-1986	
	B3	4,848,911		Uchida et al.	07-18-1989	
	B4	5,074,667		Miyatake	12-24-1991	
	B5	5,148,036		Matsugu et al.	09-15-1992	
	B6	5,148,037		Suda et al.	09-15-1992	
	B7	5,151,754		Ishibashi et al.	09-29-1992	
	B8	5,179,863		Uchida et al.	01-19-1993	
	B9	5,376,810		Hoenk et al.	12-27-1994	
	B10	5,424,549		Feldman	06-13-1995	
	B11	5,670,415		Rust	09-23-1997	
	B12	5,743,998		Park	04-28-1998	
	B13	5,855,686		Rust	01-05-1999	
	B14	5,948,219		Rohner	09-07-1999	
	B15	6,035,805		Rust	03-14-2000	
	B16	6,150,680		Eastman et al.	11-21-2000	
	B17	6,326,627	B1	Putvinski et al.	12-04-2001	
	B18	2002/0132482	A1	Chou	09-19-2002	
	B19	2002/0167117	A1	Chou	11-14-2002	
	B20	6,482,742	B1	Chou	11-19-2002	
	B21	6,534,418	B1	Plat et al.	03-18-2003	
	B22	6,541,360	B1	Plat et al.	04-01-2003	
	B23	2003/0081193	A1	White et al.	05-01-2003	
	B24	2003/0080471	A1	Chou	05-01-2003	
	B25	2004/0036201	A1	Chou et al.	02-26-2004	
	B26	5,468,542		Crouch	11-21-1995	
	B27	5,366,851		Novembre	11-22-1994	
	B28	5,362,606		Hartney et al.	11-08-1994	
	B29	5,324,683		Fitch et al.	06-28-1994	
	B30	5,212,147		Sheats	05-18-1993	
	B31	5,458,520		DeMercurio et al.	10-17-1995	
	B32	5,453,157		Jeng	09-26-1995	
	B33	5,439,766		Day et al.	08-08-1995	
	B34	5,431,727		Austin et al.	07-11-1995	
Examiner Signature					Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



Please type a plus sign (+) inside this box



PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

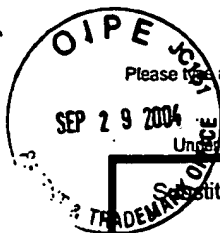
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
				Application Number	09/905,718
				Filing Date	05/16/2001
				First Named Inventor	Willson et al.
				Group Art Unit	1762
				Examiner Name	Pianalto, Bernard D.
Sheet	2	of	7	Attorney Docket Number	PA27-02Q12

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
12	B35	5,422,295		Choi et al.	06-06-1995	
	B36	5,421,981		Leader et al.	06-06-1995	
	B37	5,417,802		Obeng	05-23-1995	
	B38	5,380,474		Rye et al.	01-10-1995	
	B39	5,374,454		Bickford et al.	12-20-1994	
	B40	5,330,881		Sidman et al.	07-19-1994	
	B41	5,328,810		Lowrey et al.	07-12-1994	
	B42	5,318,870		Hartney	06-07-1994	
	B43	5,244,818		Jokerst et al.	09-14-1993	
	B44	5,242,711		DeNatale et al.	09-07-1993	
	B45	5,240,878		Fitzsimmons et al.	08-31-1993	
	B46	5,108,875		Thackeray et al.	04-28-1992	
	B47	5,053,318		Gulla et al.	10-01-1991	
	B48	4,964,945		Calhoun	10-23-1990	
	B49	4,908,298		Hefferon et al.	03-13-1990	
	B50	4,921,778		Thackeray et al.	05-01-1990	
	B51	4,919,748		Bredbenner et al.	04-24-1990	
	B52	3,783,520		King	01-08-1974	
	B53	4,119,688		Hiraoka	10-10-1978	
	B54	4,201,800		Alcorn et al.	05-06-1980	
	B55	4,426,247		Tamamura et al.	01-17-1984	
	B56	4,507,331		Hiraoka	03-26-1985	
	B57	4,552,833		Ito et al.	11-12-1985	
	B58	4,657,845		Frechet et al.	04-14-1987	
	B59	4,692,205		Sachdev et al.	09-08-1987	
	B60	4,707,218		Giammarco et al.	11-17-1987	
	B61	4,737,425		Lin et al.	04-12-1988	
	B62	4,808,511		Holmes	02-28-1989	
	B63	4,826,943		Ito et al.	05-02-1989	
	B64	4,857,477		Kanamori	08-15-1989	
	B65	4,891,303		Garza et al.	01-02-1990	
	B66	4,931,351		McColgin et al.	06-05-1990	
	B67	4,976,818		Hashimoto et al.	12-11-1990	
	B68	4,980,316		Huebner	12-25-1990	
Examiner Signature					Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



Please type a plus sign (+) inside this box



PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

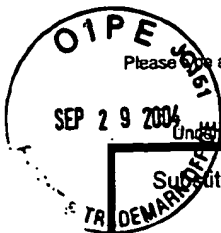
Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	09/905,718
				Filing Date	05/16/2001
				First Named Inventor	Willson et al.
				Group Art Unit	1762
				Examiner Name	Pianalto, Bernard D.
Sheet	3	of	7	Attorney Docket Number	PA27-02Q12

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	B69	4,999,280		Hiraoka	03-12-1991	
	B70	5,071,694		Uekita et al.	12-10-1991	
	B71	5,169,494		Hashimoto et al.	12-08-1992	
	B72	5,173,393		Sezi et al.	12-22-1992	
	B73	5,198,326		Hashimoto et al.	03-30-1993	
	B74	5,234,793		Sebald et al.	08-10-1993	
	B75	5,314,772		Kozicki et al.	05-24-1994	
	B76	5,527,662		Hashimoto et al.	06-18-1996	
	B77	5,654,238		Cronin et al.	08-05-1997	
	B78	5,700,626		Lee et al.	12-23-1997	
	B79	5,736,424		Prybyla et al.	04-07-1998	
	B80	5,895,263		Carter et al.	04-20-1999	
	B81	5,907,782		Wu	05-25-1999	
	B82	5,926,690		Toprac et al.	07-20-1999	
	B83	5,948,570		Kornblit et al.	09-07-1999	
	B84	6,033,977		Gutsche et al.	03-07-2000	
	B85	6,096,655		Lee et al.	08-01-2000	
	B86	6,150,231		Muller et al.	11-21-2000	
	B87	6,245,581	B1	Bonser et al.	06-12-2001	
	B88	6,274,294	B1	Hines	08-14-2001	
B89	6,329,256	B1	Ibok	12-11-2001		
B90	6,383,928	B1	Eissa	05-07-2002		
B91	6,387,783	B1	Furukawa et al.	05-14-2002		
B92	6,388,253	B1	Su	05-14-2002		
B93	6,391,798	B1	DeFelice et al.	05-21-2002		
B94	6,455,411	B1	Jiang et al.	09-24-2002		
B95	6,489,068	B1	Kye	12-03-2002		
B96	6,514,672	B2	Young et al.	02-04-2003		
B97	6,561,706	B2	Singh et al.	05-13-2003		
B98	6,565,928	B2	Sakamoto et al.	05-20-2003		
B99	2003/011368	A1	Mancini et al.	06-19-2003		
B100	2003/0129542	A1	Shih et al.	07-10-2003		
B101	6,632,742	B2	Yang et al.	10-14-2003		
B102	6,635,581	B2	Wong	10-21-2003		
Examiner Signature				Date Considered		

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



Please use a plus sign (+) inside this box



PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

4

of

7

Complete if Known

Application Number	09/905,718
Filing Date	05/16/2001
First Named Inventor	Willson et al.
Group Art Unit	1762
Examiner Name	Pianalto, Bernard D.
Attorney Docket Number	PA27-02Q12

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
		Number	Kind Code* (if known)				
	B103	6,646,662	B1	Nebashi et al.	11-11-2003		
	B104	6,677,252	B2	Marsh	01-13-2004		
	B105	2004/0029041	A1	Shih et al.	02-12-2004		
	B106	6,703,190	B2	Elian et al.	03-09-2004		
	B107	6,716,767	B2	Shih et al.	04-06-2004		
	B108	6,730,256	B1	Bloomstein et al.	05-04-2004		
	B109	6,737,202	B2	Gehoski et al.	05-18-2004		
	B110	6,743,713	B2	Mukherjee-Roy et al.	06-01-2004		
	B111	6,676,983	B1	Fujiyama et al.	07-27-2004		
	B112	6,770,852	B1	Steger	08-03-2004		
	B113	6,777,170	B1	Bloomstein et al.	08-17-2004		
	B114	6,776,094	B1	Whitesides et al.	08-17-2004		

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

5

of

7

Complete if Known

Application Number	09/905,718
---------------------------	------------

Filing Date	05/16/2001
--------------------	------------

First Named Inventor	Willson et al.
-----------------------------	----------------

Group Art Unit	1762
-----------------------	-------------

Examiner Name	Pianalto, Bernard D.
----------------------	-----------------------------

Attorney Docket Number | PA27-02Q12

FOREIGN PATENT DOCUMENTS

[illegible]

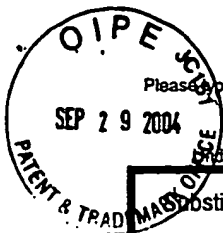
**Examiner
Signature**

Date
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.



Please type a plus sign (+) inside this box



PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known			
		Application Number	09/905,718		
		Filing Date	05/16/2001		
		First Named Inventor	Willson et al.		
		Group Art Unit	1762		
		Examiner Name	Pianalto, Bernard D.		
Sheet	6	of	7	Attorney Docket Number	PA27-02Q12

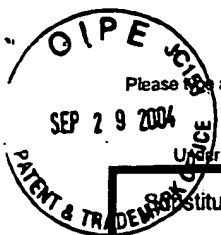
OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	B122	Abstract of Japanese Patent 63-138730 <i>No date available</i>	
	B123	Abstract of Japanese Patent 55-88332 <i>" " "</i>	
	B124	Abstract of Japanese Patent 57-7931 <i>" " "</i>	
	B125	Abstract of Japanese Patent 02-92603. <i>" " "</i>	
	B126	Translation of Japanese Patent 02-92603. <i>" " "</i>	
	B127	Abstract of Japanese Patent 02-24848. <i>" " "</i>	
	B128	Translation of Japanese Patent 02-24848. <i>" " "</i>	
	B129	HEIDARI et al., "Nanoimprint Lithography at the 6 in. Wafer Scale," Journal of Vacuum Science Technology, Nov/Dec 2000, pp. 3557-3560, vol. B, no. 18(6)/	
	B130	NERAC.COM Retro Search, "Reduction of Dimension of Contact Holes", August 31, 2004 <i>no page numbers</i>	
	B131	NERAC.COM Retro Search, "Trim Etching of Features Formed on an Organic Layer", September 2, 2004 <i>no page numbers</i>	
	B132	NERAC.COM Retro Search, "Multi-Layer Resists", September 2, 2004 <i>no page numbers</i>	

Examiner Signature		Date Considered	5/17/02
--------------------	--	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231



Please place a plus sign (+) inside this box → ☐

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known			
		Application Number	09/905,718		
		Filing Date	05/16/2001		
		First Named Inventor	Willson et al.		
		Group Art Unit	1762		
		Examiner Name	Pianalto, Bernard D.		
Sheet	7	of	7	Attorney Docket Number	PA27-02Q12

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	B133	HU et al., "Flourescence Probe Techniques (FPT) for Measuring the Relative Efficiencies of Free-Radical Photoinitiators", s0024-9297(97)01390-9; "Macromolecules" 1998, vol. 31, no. 13, pp. 4107-4113, 1998 American Chemical Society. Published on Web 05/29/1998	
	B134	FEYNMAN, Richard P., "There's Plenty of Room at the Bottom—An Invitation to Enter a New Field of Physics," 12 pp [online]Retreived 9/23/04 from URL: http://www.zyvex.com/nanotech/feynman.html .	
	B135	Communication Relating to the Results of the Partial International Search; International Appl. No. PCT/US2002/015551.	

Examiner Signature		Date Considered	5/16/01
--------------------	--	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number

Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				APPLICATION NUMBER 09/905,718	
				FILING DATE 05/16/2001	
(use as many sheets as necessary)				FIRST NAMED INVENTOR Willson et al.	
				Group Art Unit 1762	
Sheet 1 of 5				Examiner Name Weeks, Timothy H.	
				Attorney Docket Number PA27-02V12	

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			

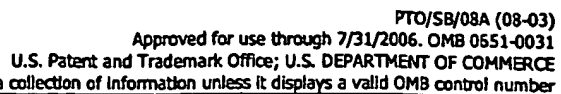
✓	D1	5,425,848		Haisma et al.	6/20/1995	
	D2	6,309,580	B1	Chou	10/30/2001	
	D3	6,517,977	B2	Resnick et al.	2/11/2003	
	D4	6,696,220	B2	Bailey et al.	2/24/2004	
	D5	2002/0177319	A1	Chou	11/28/2002	
	D6	6,713,238	B1	Chou et al.	3/30/2004	
	D7	2004/0009673	A1	Sreenivasan et al.	1/15/2004	
	D8	6,518,189	B1	Chou	2/11/2003	
	D9	2003/0080471	A1	Chou	5/1/2003	
	D10	2004/0036201	A1	Chou et al.	2/26/2004	
	D11	2004/0192041	A1	Jeong et al.	9/30/2004	
	D12	6,828,244	B2	Chou	12/7/2004	
	D13	6,809,356	B2	Chou	10/26/2004	
	D14	2004/0197843	A1	Chou et al.	10/7/2004	
	D15	2004/0156108	A1	Chou et al.	8/12/2004	
	D16	2004/0137734	A1	Chou et al.	7/15/2004	
	D17	2004/0131718	A1	Chou et al.	7/8/2004	
	D18	2004/0118809	A1	Chou et al.	6/24/2004	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



Substitute for form 1449A/PTO

(use as many sheets as necessary)

Sheet	2	of	5
-------	---	----	---

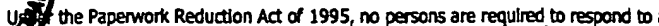
APPLICATION NUMBER	09/905,718
FILING DATE	05/16/2001
FIRST NAMED INVENTOR	Willson et al.
Group Art Unit	1762
Examiner Name	Meeks, Timothy H.
Attorney Docket Number	PA27-02V12

D19	2004/0046288	A1	Chou	3/11/2004
D20	2003/0080472	A1	Chou	5/1/2003
D21	2003/0034329	A1	Chou	2/20/2003
D22	2002/0042027	A1	Chou et al.	4/11/2002
D23	2004/0200411	A1	Willson et al.	10/14/2004
D24	10/687,562		Cherala et al.	10/16/2003
D25	6,580,172	B2	Mancini et al.	6/17/2003
D26	10/923,629		Sreenivasan et al.	8/20/2004
D27	4,512,848		Deckman et al.	4/23/1985
D28	6,517,995	B1	Jacobenson et al.	2/11/2003
D29	2004/0110856	A1	Young et al.	6/10/2004
D30	5,028,366		Harakal et al.	7/2/1991
D31	5,601,641		Stephens	2/11/1997
D32	5,849,209		Kindt-Larsen et al.	12/15/1998
D33	5,849,222		Jen et al.	12/15/1998

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450.. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



Approved for use through 7/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449A/PTO

(use as many sheets as necessary)

Sheet	3	of	5
-------	---	----	---

Complete if Known

APPLICATION NUMBER	09/905,718
FILING DATE	05/16/2001
FIRST NAMED INVENTOR	Willson et al.
Group Art Unit	1762
Examiner Name	Meeks, Timothy H.
Attorney Docket Number	PA27-02V12

[illegible]

**Examiner
Signature**

Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450.. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
				APPLICATION NUMBER	09/905,718
				FILING DATE	05/16/2001
				FIRST NAMED INVENTOR	Willson et al.
				Group Art Unit	1762
				Examiner Name	Meeks, Timothy H.
				Attorney Docket Number	PA27-02V12
Sheet	4	of	5		

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite, No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²

	D42	Chou, Nanoimprint Lithography and Lithographically Induced Self-Assembly, MRS Bulletin, pp. 512 - 517, 7/1/2001	
	D43	Choi et al., Design of Orientation Stages for Step and Flash Imprint Lithography, Precision Engineering, pp. 192 - 199, 1/1/2001	
	D44	Colburn et al., Step and Flash Imprint Lithography for sub-100 nm Patterning, Proceedings of SPIE Vol. 3997, pp. 453 - 457, 1/1/2000	
	D45	Johnson et al., Advances in Step and Flash Imprint Lithography, SPIE Microlithography Conference, 2/23/2003 <i>no page numbers</i>	
	D46	Chou et al., Ultrafast and Direct Imprint of Nanostructures in Silicon, Nature, Col. 417, (June 2002), pp. 835-837, 6/1/2002	
	D47	Chou et al., Nanoimprint Lithography, Journal of Vacuum Science Technolgy B 14(16), pp. 4129-4133, 11/1/1996	
	D48	Colburn et al., Development and Advantages of Step-and-Flash Lithography, Solid State Technology, 7/1/2001 <i>no page numbers</i>	
	D49	Colburn et al., Characterization and Modeling of Volumetric and Mechanical Properties for Step and Flash Imprint Lithography Photopolymers, Journal of Vacuum Science Technology, Vol b. 19(6), 11/1/2001 <i>no page numbers</i>	
	D50	Bailey et al., Step and Flash Imprint Lithography: Defect Analysis, Journal of Vacuum Science, B 19(6), pp. 2806-2810, 11/1/2001	

Examiner Signature		Date Considered	
-------------------------------	--	----------------------------	--

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.
¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.
This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.
If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



PTO/SB/08A (08-03)

Approved for use through 7/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number

Substitute for form 1449A/PTO				Complete if Known	
				APPLICATION NUMBER	09/905,718
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				FILING DATE	05/16/2001
				FIRST NAMED INVENTOR	Willson et al.
(use as many sheets as necessary)				Group Art Unit	1762
				Examiner Name	Meeks, Timothy H.
Sheet	5	of	5	Attorney Docket Number	PA27-02V12

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²

	D51	Bailey et al., Step and Flash Imprint Lithography: Template Surface Treatment and Defect Analysis, Journal of Vacuum Science, B 18(6), pp. 3572-3577, 11/1/2000	
	D52	Schneider et al., Stripes of Partially Fluorinated Alkyl Chains: Dipolar Langmuir Monolayers <i>no date available + no page numbers</i>	

Examiner Signature		Date Considered	5/24/01
---------------------------	--	------------------------	---------

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.